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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/965,218 | 09/27/2001 | Peter J. Wagener | P6051 | 3868 |

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KUDIRKA & JOBSE, LLP
ONE STATE STREET
SUITE 800
BOSTON, MA 02109

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| EXAMINER |
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CORRIELUS, JEAN M

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| ART UNIT | PAPER NUMBER |
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2172

DATE MAILED: 09/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/965,218

Applicant(s)

WAGENER ET AL.

Examiner

Jean M Corrielus

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to the application filed on September 27, 2001, in which claims 1-26 are presented for examination.

Drawings

2. Applicants are required to furnish the formal drawings in response this office action. No new matter may be introduced in the required drawing. Failure to timely submit a drawing will result in **ABANDONMENT** of the application.

Claim Objections

3. Claims 1-11 are objected to because of the following informalities: claim 1, recites "The host", line 9. For the purpose of examination, the examiner has considered "the host" as --the host computer system--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1, 12, 23 and 26 recite the use of "management façade software that converts the interface layer API to platform-independent method calls". It is unclear how the aforementioned limitation is related to the rest of limitations recited in the claim. There is no

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connection what so ever with regard to the cited limitation in the claim. Applicants are reminded to amend the claims to solve the 112 problem set forth in this office action.

6. Claims 1, 12, 23 and 26 recite the limitation "The interface layer API" in line 10, 8, 10 and 9 respectively. There is insufficient antecedent basis for this limitation in the claims.

Double Patenting

7. The non statutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claims 1-26 are provisionally rejected under the judicially created doctrine of double patenting over claims 1-26 of copending Application No. 09/960,122. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application

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since the referenced copending application and the instant application are claiming common subject matter. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following reasons: Claim 1 of the instant application substantially recites the limitations of claim 1 of the cited co-pending application. The claim merely omits certain the underlined limitations and replaces the bolded limitations as shown in comparison table 1 below.

| Application Claim 1 | Co-pending Application 1 |
|--|---|
| <p>1. A method for managing data volumes from a management terminal in a distributed computer system having a host computer system with at least one storage device connected to the computer system by driver software, the method comprising:</p> <p>(a) inserting an interface layer between the driver software and the storage device, the interface layer exporting a platform dependent API and controlling data passing between the driver software and the storage;</p> <p>(b) running, in the host, management façade software that converts the interface layer API to platform-independent method calls;</p> <p>(c) running, the host, a federated beam that discovers data volumes in the storage device and generates method calls to the management façade to control the interface layer; and</p> <p>(d) controlling the federated beam to display and configure the data volume.</p> | <p>1. A method for managing data volumes from a management terminal in a distributed computer system having a host computer system with at least one storage device connected to the computer system by driver software, the method comprising:</p> <p>(a) inserting an interface layer between the driver software and the storage device, the interface layer exporting a platform dependent API and controlling data passing between the driver software and the storage;</p> <p>(b) running, in the host, management façade software that converts the interface layer API to platform-independent method calls;</p> <p>(c) running, the host, a federated beam that discovers data volumes in the storage device and generates method calls to the management façade to control the interface layer; and</p> <p>(d) controlling the federated beam <u>to designate master volumes, shadow volumes and bitmap volumes and to transfer data between specified master and shadow volumes.</u></p> |

Table 1

It would have been obvious to one of ordinary skill in the art of data processing at the time the invention was made to modify the cited steps as indicated claim 1 of the co-pending application since the omission and addition of the cited limitations would have not changed the process according to which the method for managing data volumes from a management terminal in a distributed computer system. Therefore, the ordinary skilled artisan would have been also motivated to modify claim 1 of the cited US co-pending application by deleting the use of

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designating master volumes, shadowing volumes and bitmap volumes and transferring data between specified master and shadow volumes. The cited omitting elements would not interfere with the functionality of the steps previously claimed and would perform the same function. In re Karlson, 136 USPQ 184 (CCPA 1963).

The dependent claims 2-11 of the instant application are rejected for fully incorporating the errors of their respective base claims by dependency.

| Application Claim 12 | Co-pending Application 9 |
|---|--|
| <p>12. A method for managing data volumes from a management terminal in a distributed computer system having a host computer system with at least one storage device connected to the computer system by driver software, the method comprising:</p> <p>(a) an interface layer between the driver software and the storage device, the interface layer exporting a platform dependent API and controlling data passing between the driver software and the storage;</p> <p>(b) management façade software that converts the interface layer API to platform-independent method calls;</p> <p>(c) a federated beam that discovers data volumes in the storage device and generates method calls to the management façade to control the interface layer; and</p> <p>(d) a presentation program that controls the federated beam to display and configure the data volume.</p> | <p>9. Apparatus for managing data volumes from a management terminal in a distributed computer system having a host computer system with at least one storage device connected to the computer system by driver software, the apparatus comprising:</p> <p>(a) an interface layer located between the driver software and the storage device, the interface layer exporting a platform dependent API and controlling data passing between the driver software and the storage;</p> <p>(b) management façade software that runs in the host computer system and converts the interface layer API to platform-independent method calls;</p> <p>(c) federated beam that runs in the host computer system and generates method calls to the management façade to control the interface layer; and</p> <p>(d) a presentation program that controls the federated beam <u>to designate master volumes, shadow volumes and bitmap volumes and to transfer data between specified master and shadow volumes.</u></p> |

Table 2

It would have been obvious to one of ordinary skill in the art of data processing at the time the invention was made to modify the cited steps as indicated claim 12 of the co-pending application since the omission and addition of the cited limitations would have not changed the process

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according to which the method for managing data volumes from a management terminal in a distributed computer system. Therefore, the ordinary skilled artisan would have been also motivated to modify claim 12 of the cited US co-pending application by deleting the use of designating master volumes, shadowing volumes and bitmap volumes and transferring data between specified master and shadow volumes. The cited omitting elements would not interfere with the functionality of the steps previously claimed and would perform the same function. In re Karlson, 136 USPQ 184 (CCPA 1963).

The dependent claims 13-22 of the instant application are rejected for fully incorporating the errors of their respective base claims by dependency.

| Application Claim 23 | Co-pending Application 17 |
|---|--|
| <p>23. A computer program product for managing data volumes from a management terminal in a distributed computer system having a host computer system with at least one storage device connected to the computer system by driver software, the method comprising:</p> <p>(a) an interface layer program code between the driver software and the storage device, the interface layer exporting a platform dependent API and controlling data passing between the driver software and the storage;</p> <p>(b) management façade software that converts the interface layer API to platform-independent method calls;</p> <p>(c) a federated beam program code that discovers data volumes in the storage device and generates method calls to the management façade to control the interface layer; and</p> <p>(d) a presentation program that controls the federated beam to display and configure the data volume</p> | <p>17. A computer program product for managing data volumes from a management terminal in a distributed computer system having a host computer system with at least one storage device connected to the computer system by driver software, the apparatus comprising:</p> <p>(a) an interface layer program code located between the driver software and the storage device, the interface layer exporting a platform dependent API and controlling data passing between the driver software and the storage;</p> <p>(b) management façade software that runs in the host computer system and converts the interface layer API to platform-independent method calls;</p> <p>(c) federated beam program code that runs in the host computer system and generates method calls to the management façade to control the interface layer; and</p> <p>(d) a presentation program that controls the federated beam to <u>designate master volumes, shadow volumes and bitmap volumes and to transfer data between specified master and shadow volumes</u>.</p> |

Table 3

It would have been obvious to one of ordinary skill in the art of data processing at the time the invention was made to modify the cited steps as indicated claim 23 of the co-pending application

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since the omission and addition of the cited limitations would have not changed the process according to which the method for managing data volumes from a management terminal in a distributed computer system. Therefore, the ordinary skilled artisan would have been also motivated to modify claim 23 of the cited US co-pending application by deleting the use of designating master volumes, shadowing volumes and bitmap volumes and transferring data between specified master and shadow volumes. The cited omitting elements would not interfere with the functionality of the steps previously claimed and would perform the same function. In re Karlson, 136 USPQ 184 (CCPA 1963).

The dependent claims 24-25 of the instant application are rejected for fully incorporating the errors of their respective base claims by dependency.

| Application Claim 26 | Co-pending Application 20 |
|---|--|
| <p>26. A computer data signal embodied in a carrier wave for managing data volumes from a management terminal in a distributed computer system having a host computer system with at least one storage device connected to the computer system by driver software, the method comprising:</p> <p>(a) an interface layer program code between the driver software and the storage device, the interface layer exporting a platform dependent API and controlling data passing between the driver software and the storage;</p> <p>(b) management façade software that converts the interface layer API to platform-independent method calls;</p> <p>(c) a federated beam program code that discovers data volumes in the storage device and generates method calls to the management façade to control the interface layer; and</p> <p>(d) a presentation program that controls the federated beam to display and configure the data volume</p> | <p>20. A computer program product for managing data volumes from a management terminal in a distributed computer system having a host computer system with at least one storage device connected to the computer system by driver software, the apparatus comprising:</p> <p>(a) an interface layer program code located between the driver software and the storage device, the interface layer exporting a platform dependent API and controlling data passing between the driver software and the storage;</p> <p>(b) management façade software that runs in the host computer system and converts the interface layer API to platform-independent method calls;</p> <p>(c) federated beam program code that runs in the host computer system and generates method calls to the management façade to control the interface layer; and</p> <p>(d) a presentation program that controls the federated beam <u>to designate master volumes, shadow volumes and bitmap volumes and to transfer data between specified master and shadow volumes.</u></p> |

Table 4

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It would have been obvious to one of ordinary skill in the art of data processing at the time the invention was made to modify the cited steps as indicated claim 26 of the co-pending application since the omission and addition of the cited limitations would have not changed the process according to which the method for managing data volumes from a management terminal in a distributed computer system. Therefore, the ordinary skilled artisan would have been also motivated to modify claim 26 of the cited US co-pending application by deleting the use of designating master volumes, shadowing volumes and bitmap volumes and transferring data between specified master and shadow volumes. The cited omitting elements would not interfere with the functionality of the steps previously claimed and would perform the same function. In re Karlson, 136 USPQ 184 (CCPA 1963).

The dependent claims 2-11 of the instant application are rejected for fully incorporating the errors of their respective base claims by dependency.

Allowable Subject Matter

9. Claims 1-26 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and upon filing a terminal disclaimer.

Conclusion

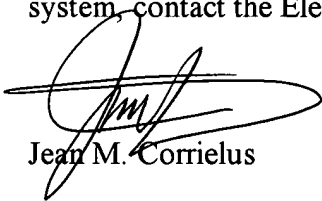
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean M. Corrielus whose telephone number is (703) 306-3035.

The examiner can normally be reached on Monday - Friday (12:00pm - 7:30 pm).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E Breene can be reached on (703) 305-9790. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jean M. Corrielus

Patent Examiner

September 8, 2004